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FEB 09 2006

0017

7 February 2006

Paul A. Marshall
Department of Water Resources
South Delta Branch
Draft EIR/EIS Comments
1416 9th Street, 2nd Floor
Sacramento CA 95814

Comments on Draft South Delta Improvements Program
Environmental Impact Statement/Environmental Impact Report

Dear Mr. Marshall:

With respect to the Draft EIR/EIS (EIR) for the South Delta Improvements Program and the water agencies' plans for physical and hydrologic modifications in the Delta (Project), we request the following:

- Withdraw the EIR.
- Immediately reduce pumping rates and water exports commensurate with those employed circa 2000; pumping rates and water exports that (at least partially) promoted an increase in Delta Smelt abundance.
- Place a moratorium on all plans for increased pumping rates and water exports at the Banks Pumping Plant, including physical improvements such as dredging and permanent barriers to facilitate such actions, until the Delta ecosystem is recovered and self-sustaining.
- Provide for long-term ecosystem restoration measures, water quality (not just salinity) enhancements, and levee protections with greater reliability and equitable funding; otherwise, measures that jeopardize the Delta such as pumping and water exports will not be balanced by measures that protect the Delta.
- Include an appropriate range of alternatives in all analyses involving physical and hydrologic modifications of the Delta; in particular, you

should include alternatives that reduce pumping rates and water exports.

The Project Has Been Proposed At An Inappropriate Time

You have been unwise to propose the Project at this time. You have been unresponsive to prevailing conditions. Several factors would lead prudent, responsive public agencies to delay the Project:

- The Department of Fish and Game has sounded the alarm regarding the Delta ecosystem crash and has initiated, in concert with other State and Federal agencies, studies of the Pelagic Organism Decline. Although your EIR acknowledges this, you have failed to connect the dots - study results of the Pelagic Organism Decline will likely impact all decisions and evaluations regarding barriers, dredging, and water operations in the Delta. According to our recent discussions with Chuck Armor, Chief of Operations for the Bay-Delta Office of the Department of Fish and Game, as more results are obtained and interpreted regarding the Pelagic Organism Decline, water diversions (including the magnitude and timing of pumping/water exports and the export/import ratio) remain a primary cause of the fishery and ecosystem demise, along with exotic species and toxics. Each successive sampling of Delta Smelt indicates conditions continue to worsen, unabated. Recently, white sturgeon has been added as a species with dramatic declines contemporary with the Delta ecosystem crash; current sturgeon abundances are feared to be below self-sustaining levels.
- The courts have rejected the Calfed Programmatic Record of Decision because, in part, it failed to analyze alternatives that reduce pumping rates and water exports. We understand the California Supreme Court has decided to hear the appeal. The EIR is tiered off the Calfed ROD. The cumulative impact analysis in the EIR relies heavily on the Calfed ROD. The basis of the Project will be severely undermined if the lower court decision is upheld on appeal.
- The San Luis Unit drainage problem remains unresolved. Resolution will affect all of your alleged needs for increased water exports vis-à-vis the planned retirement of salt- and drainage-impaired irrigated lands; in fact, land retirement alternatives and concomitant reductions in irrigation demands (reference comments you have received from the Trinity County Board of Supervisors dated 18 January 2006 citing 1,200,000 acre-feet of water saving from land retirement) from the San Luis Unit drainage project may, in and of themselves, sufficiently reduce the water exports and substantially mitigate salinity and water levels concerns for in-Delta farmers. Furthermore, the citizens of California cannot in good faith allow any consideration of increased water exports until this anticipated, long-recognized, yet ignored toxic drainage impact of past water exports is resolved. Water delivery

contracts remain similarly unresolved pending implementation of the San Luis Unit drainage project.

The Calfed Program and the California Bay Delta Authority no longer exist in any functional manner. No mechanism currently exists for balanced implementation of Delta actions. The Project should not be considered until the Calfed Program is reconstituted.

The Biological Opinion for salmonids, in support of the Operations and Criteria Plan, has been judged inadequate from the standpoint of process (Inspector General's report) and substance/best science (Calfed Science Program report) (http://science.calwater.ca.gov/workshop/workshop_ocap.shtml). The EIR propagates a faulty foundation for analyzing the impacts to salmon and steelhead and is tiered off faulty conclusions regarding (no) jeopardy.

- The State and Federal fish and wildlife agencies, along with the State and Federal water agencies, are still searching for demonstrated, reliable, durable, long-term, equitably-funded mitigation measures. The EIR relies upon the Environmental Water Account and/or similar pumping offset schemes; however, these measures have not been effective in stemming the Delta ecosystem crash and are not equitably funded for the long term.
- The stability of the Delta levee system is unreliable. Although this is not new news, it has garnered renewed attention. You have proposed unwise infrastructure investments such as permanent barriers and unwise reliance on increased water supply reliance from the Delta, given the inherent seismic, subsidence, and erosion (piping) risks of Delta levees.
- The courts have issued a restraining order on construction of the intertie. The courts have agreed to hear the case in February 2006. Event a short delay on your part would allow this issue to be substantially clarified.

Your haste in proposing this project has risked wasting millions of dollars of taxpayer money and diverted attention away from other, important, consensus projects such as planning and implementing a strategy for Delta levees.

The Project Should Be Bifurcated

Phasing the Project has resulted in the following:

- The EIR is confusing; the document is a complex mix of alternatives, evaluations, impacts, and mitigation measures (1) specific to the physical/structural component (Phase 1), (2) specific to the operational component (Phase 2), including multiple operational scenarios and the No Action operational scenario, and (3) representing the combined

effects of the complete Project (Phase 1 and Phase 2); all referenced occasionally to existing conditions.

For example, Section 5.1 of the EIR contains a discussion of interim operations that allow seasonal pumping up to 8,500 cfs. We have guessed that this represents new authority for increased pumping under either Phase 1 or Phase 2 of the Alternative 2s, consistent with your historic presentations describing water operations. However, interim operations could apply only to Phase 2, or it could refer to the limited existing ability to pump 8,500 cfs, although the EIR wording refers to "changes" to interim operations. This is just one of many examples of the confusion created in the EIR.

While we would otherwise be inclined to support a permanent Head-of-Old River barrier, we cannot in good faith support Alternative 4B, because we fear such support would, in turn, support increased pumping rates and water exports and other embedded consequences.

- Unless you have prejudged the results of your proposed Phase 2 evaluations and determined (now) that you will select and certify an alternative for Phase 2 other than No Action (i.e. select and certify increased pumping and water exports), you must acknowledge the distinct possibility that only Phase 1 will be implemented. Accordingly, the merits of Phase 1 must stand alone and a Phase 1 standalone EIR should be prepared.
- The EIR fails to acknowledge that the dredging and barriers incentivize increased pumping rates and water exports. The SWP contractors will apply renewed pressure for the Sate to provide cheap subsidized Delta water once the dredging and barriers are complete.

  In contrast, a separate EIR regarding dredging and barriers will bring into focus the benefits of reduced pumping and exports, the benefits of modifying in-Delta agricultural intakes for lower water elevations and fish screens, the benefits of setback levees, and the benefits of rewatering the San Joaquin River, all worthy alternatives to the dredging and barriers.

You should withdraw the EIR and re-propose a distinct project for the benefit of in-Delta farmers and fish.

Fishermen And Fisherwomen Are Staunchly Opposed To The Project

All decisions regarding this Project should recognize the value of individual input (democracy), especially in light of the Project's significant negative impacts to the environment. Your Public Trust responsibilities require this.

Fishermen and fisherwomen spend time on-the-water and are typically good observers and stewards of the Delta ecosystem. We are universally convinced the Project is inappropriate at this time.

In the short time available to us after the holiday season and before the hearing to receive public testimony (2-26 January 2006), we coordinated a postcard campaign and have forwarded approximately 4 thousand postcards in opposition to the Project. The outcry against this project is compelling, particularly in light of the short time we were afforded to solicit a response from our constituency.

The Purpose Of The Project Has Been Mischaracterized

The EIR contains numerous citations regarding the alleged need to provide increased pumping and water exports from the Delta and the alleged discrepancy between water supply and demand (alleged unmet needs). There is no need to export additional water from the Delta for the foreseeable future. Your recently finalized State Water Plan (Bulletin 160) does not support these alleged needs. Additional analysis by Trinity County (reference comments you have received from the Trinity County Board of Supervisors dated 18 January 2006 citing 1,200,000 acre-feet of water saving from land retirement) indicates actual demands for Delta exports will likely decrease in the future.

The EIR inaccurately characterizes the Project as providing increased water supply reliability. The EIR fails to accurately characterize the risks associated with relying on Delta exports. There are substantial, inherent seismic, subsidence, and erosion (piping) risks of levee failure that translate to uncertain water supply. There are substantial uncertainties associated with climate change that translate to uncertain water supply. Because the EIR does not address climate change, we are unable to provide specific comments; however, it is our general understanding that climate change will exacerbate flood flows and cause baseline water levels (sea level) to rise, both of which increase the risk of levee failure. There are substantial uncertainties associated with the Delta ecosystem crash (Pelagic Organism Decline) and the logical need to reduce pumping rates and water exports in order to prevent extinction of Delta Smelt, decline of other aquatic resources, and restore the basic ecological functions of the Delta; these uncertainties translate to uncertain water supply. Compared to the variety of water supply alternatives, including those identified within the State Water Plan (Bulletin 160), water exports from the Delta should be characterized as unreliable.

The Barriers Negatively Impact Fish

In light of the Delta ecosystem crash, and particularly the unabated decline in Delta Smelt, we understand selected biologists have questioned the advisability of installing temporary barriers this season.

The effect of the existing barriers has been to substantially change the circulation patterns in the South Delta (Summary of Delta Hydrology Data, Water Years 1985 - 2004, Joseph Simi and Catherine Ruhl, United States Geological Survey):

- Smelt and other fish are trapped behind the barriers and are prevented from moving downstream as they migrate from their spawning grounds to their rearing areas.
- Since 2000, the length of time the temporary barriers have been in place each year has steadily increased, from an average of 150 to 225 days per year; this coincides with observed fishery declines. The

increased barrier deployment was required to avoid impacts on in-Delta farmers as export pumping increased substantially.

- The barriers have the effect of reversing flows in Old and Middle Rivers and, since 2000, flows have been increasingly negative. When the barriers are not in place, 60-70% of the export water is drawn from Old and Middle Rivers. After the temporary agriculture barriers are in place, the percentage drawn from Old and Middle River increases to 85%.

  This change in circulation and flow patterns is the predominant reason for the Head-of-Old River barrier as required by the Vernalis Adaptive Management Plan. Closing this barrier however reduces the amount of fresh water that flows into the Delta via Old River, which is potentially harmful to the Delta Smelt. Accordingly, attempts to protect salmonids may be having the unintended consequence of harming the Smelt. It is unwise to pursue actions that force a decision to harm one endangered species in favor of another.

We dispute the finding in the EIR that the permanent barriers will benefit Delta Smelt. We dispute the conclusion in the EIR that the permanent barriers provide more favorable fish migration patterns during the early stages of the outgoing tide, compared to the temporary barriers. Fundamentally, the temporary barriers can be installed and operated to provide similar favorable conditions and should be implemented in such manner.

The portion of the South Delta that will be "isolated" by the proposed permanent barriers will be larger than the temporary barrier system (the geographic area encompassed by the permanent barriers will be larger than the temporary barriers). We believe this "isolation" area should be considered an entrainment zone, where normal fish migration patterns are disrupted by artificial flow conditions and where fish are exposed to numerous unscreened agricultural diversions.

The Delta Smelt and juvenile striped bass captured in this entrainment zone will either be killed by the local agricultural diversions, redirected to the San Joaquin River via the Head-of-Old River barrier, or redirected to the State and Federal pumping plants via the Grant Line and Old River DMC barriers. We do not believe any of these outcomes is favorable compared to a scenario of unrestricted migration.

Delta Smelt Are Not Adequately Evaluated And Protected

Delta Smelt are the "canary" of the Delta and a surrogate for other important species such as juvenile striped bass. While the following comments are specific to Delta Smelt, they may also be considered in the broader context of Delta Smelt's surrogate function.

- The EIR relies upon a faulty Biological Opinion (supporting the Operations Criteria and Plan). While you may discount the substance of the pending lawsuit regarding the Biological Opinion for Delta Smelt, you cannot in good faith dismiss the desperate condition of Delta Smelt and the fact that project operations described in the Operations Criteria and Plan do, in fact, result in jeopardy.

- As described in the preceding section of our comments, the Phase 1 components of the Project (barriers) have a significant negative impact on Delta Smelt. In particular, the increased days of barrier deployment coincide with Delta Smelt declines and a thorough analysis of this linkage is needed.

- The EIR has largely characterized Delta Smelt impacts via entrainment losses at the South Delta pumping plants. While we agree that entrainment is almost certain death for Delta Smelt (salvage should be considered ineffective), we do not believe the entrainment analogy is sufficient, nor does entrainment comprehensively characterize impacts.

  Entrainment monitoring relies upon the effective identification of Delta Smelt at the fish salvage facilities and recent study results associated with the Pelagic Organism Decline indicate counts have not been accurate.

  Entrainment monitoring relies on a size threshold (20 mm) for capture and counting - Delta Smelt below this size threshold have been ignored; one cannot infer impacts on sub-threshold Delta Smelt from "counted" fish, either in proportion or timing.

  Foodweb impacts and water quality impacts affect Delta Smelt, but the effects are not characterized by the entrainment analogy. This may be particularly important in the late summer when Delta Smelt entrainment at the fish salvage facilities is low, but the combined pumping rates at the South Delta pumping plants is high, contrary to natural or historic conditions. The unnatural water movement has been identified as a potential impact on zooplankton and consequently Delta Smelt survival, but remains unstudied.

- Mitigation for entrainment losses relies upon the Environmental Water Account and/or similar pumping offset schemes.

  Despite significant Calfed efforts, there is no long term Environmental Water Account. There is no agreement regarding funding that would facilitate a long term Environmental Water Account. In light of the observed difficulties in establishing an equitably-funded long term Environmental Water Account, it is unrealistic to believe an equivalent pumping offset scheme could be crafted by virtue of this Project.

  There has been no credible study demonstrating the effectiveness of the Environmental Water Account to mitigate the impacts of pumping and water exports. In fact, detailed monitoring, including the Pelagic Organism Decline studies, coincides with the five years in which the Environmental Water Account has been operational and in which winter exports have been increased to their highest levels on record. The studies indicate the Environmental Water Account has been ineffective in mitigating entrainment impacts.

  The Pelagic Organism Decline studies have disclosed that more Delta Smelt are being entrained in the winter and this could be a significant contributor to the recent population declines. However,

Environmental Water Account actions have not been responsive to this need and the operational history of the Environmental Water Account fails to support any allegation that fish entrainment resulting from increased pumping during the winter will be adequately mitigated.

Evaluating the impacts on juvenile Smelt is difficult because the location of spawning grounds and behavior of the fish are not well understood. Juveniles of lengths greater than 20 mm start showing up at the salvage facility in early May. It is typically assumed that spawning occurred in March, and that the larvae have been drifting in the water column for one month. This would indicate that larvae spawned upstream of Jersey Point on the San Joaquin are likely to be completely entrained during March, April and May. The fraction of smelt larvae saved due to VAMP and Environmental Water Account actions has not been determined. Lacking this information it is difficult to quantify the effectiveness of and rely upon the mitigation provided by the proposed pumping reductions.

Mitigation for sub-20 mm Delta Smelt is not possible as no mechanisms exists to monitor (count, track) these fish.

back Levees Have Not Been Adequately Considered

e EIR summarily rejects setback levees during the alternatives screening, in part due to substantiated beliefs that "willing sellers" are not available.

ıe benefits of setback levees include:

- The new levees will be constructed according to modern-day seismic, subsidence, and erosion (piping) standards.
- The setback will provide a zone of beneficial shallow water where predation is reduced, safe fish migration is facilitated, and ecological functions are enhanced.
- The need for continued maintenance dredging and associated negative environmental impacts is eliminated or substantially reduced.
- Velocities are decreased in the central portion of the channel, where inappropriate migratory signals are exacerbated due to the South Delta pumping plants.

Financial incentives can be provided to landowners that facilitate willing sellers and still re lower total project costs. Setback levees should be retained as a viable alternative for the I

Offsite And Redirected Impacts of Transfers Have Not Been Adequately Considered

The EIR fails to identify the significant offsite and redirected impacts regarding transfers addition, we believe water contractors should not accrue windfall profits from the delive subsequent transfer of water in excess of their actual needs.

The EIR makes numerous references to and relies upon the Operations Criteria and Plan; however, there are substantial differences between the transfers cited in the two documents and the differences are not reconciled. The Operations Criteria and Plan cites larger transfers during average, dry year, and maximum credible scenarios, with the difference varying between approximately 30 to 70%.

Additionally, because agricultural users predominate the CVP and municipal/industrial users predominate the SWP, and because agricultural use is expected to decrease, it is likely that CVP contractors will more freely transfer water, creating additional demands on the SWP via the intertie. The newly signed water contracts of the CVP provide for increased supply despite demonstrated decreased need, further reinforcing the notion that the Project will incentivize transfers via the intertie. The citizens of the State of California are adamantly opposed to a scheme whereby the State facilitates subsidized water for transfer by corporate farmers.

Water Quality Is Broader Than Salinity and Dissolved Organic Carbon

The EIR has focused on salinity and dissolved organic carbon and inadequately addresses the multitude of components comprising water quality. The EIR has relied upon models designed for salinity that fundamentally cannot describe other important water quality parameters.

Thank you for considering these comments.

Sincerely,

Northern California Council / Federation of Fly Fishers

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